

ABSTRACT OF THE DISCLOSURE

A passive echo cancellation circuit for reducing echoes on a subscriber line includes an output driver adapted to drive a downstream signal on the subscriber line. First sensing circuitry is coupled to the output driver and adapted to sense a current on the subscriber line to generate a first voltage. A balancing network is adapted to receive at least a portion of the downstream signal. Second sensing circuitry is adapted to sense a current in the portion of the downstream signal passing through the balancing network to generate a second voltage. An upstream driver is adapted to subtract the second voltage from the first voltage to generate an upstream signal. A method for canceling echoes on a subscriber line includes driving a downstream signal on the subscriber line; sensing a current on the subscriber line to generate a first voltage; providing a portion of the downstream signal to a balancing network; sensing a current in the portion of the downstream signal passing through the balancing network to generate a second voltage; and subtracting the second voltage from the first voltage to generate an upstream signal.